171. (New) The method of claim 167 wherein the method further comprises, prior to dividing the nucleic acid sample,

diluting the nucleic acid sample such that, on average, each amplification reaction contains a single nucleic acid molecule.

Please cancel claims 1-41 and 46-52.

Remarks

Claims 42-45 and 53-171 are pending. Claims 1-41 and 46-52 have been canceled. Claims 53-171 are newly added. New claims 53-56 are based on original claims 42-45, respectively, and include screening identified nucleic acid molecules by coupled transcription-translation to identify nucleic acid molecules encoding proteins with a specific catalytic activity. New claims 53-56 find support at least in original claims 42-45, respectively, and on page 3, lines 27-30, where coupled transcription-translation and catalytic activity screening are described.

New claims 57 and 59-61 are based on original claims 42-45, respectively, and include subjecting identified nucleic acid molecules by coupled transcription-translation to produce transcripts and proteins. New claims 57 and 59-61 find support at least in original claims 42-45, respectively, and on page 3, lines 27-30, where coupled transcription-translation is described. New claim 58 finds support at least on page 3, lines 27-30, where coupled transcription-translation and activity screening are described.

New claims 62-65 are based on original claims 46-49, respectively, and refer to inserting nucleic acid molecules into linear vectors. New claims 62-65 find support at least in claims 46-49, respectively, and on page 2, lines 11-13, and page 2, lines 24-26, where insertion of nucleic

acid molecules into linear vectors is described. New claims 66-69 are based on original claims 46-49, respectively, and refer to forming circular vectors. New claims 66-69 find support at least in claims 1-41, respectively, and on page 2, lines 11-13, and page 2, lines 24-26, where formation of circular vectors is described.

New claims 70-73 are based on original claim 50, each claim representing one of the alternatives recited in original claim 50. New claims 70-73 find support in original claim 50. New claims 74-77 are based on original claim 51, each claim representing one of the alternatives recited in original claim 51. New claims 74-77 find support in original claim 51.

New claims 78 and 79 are based on original claims 1 and 2, and 1 and 3, respectively, and refer to coupling of nucleic acid molecules to linear vectors. New claims find support at least in original claims 1 and 2, and 1 and 3, respectively, and on page 16, lines 6-11, where coupling of nucleic acid molecules is described.

New claims 80-120 are based on original claims 1-41, respectively, and refer to inserting nucleic acid molecules into linear vectors. New claims 80-120 find support at least in claims 1-41, respectively, and on page 2, lines 11-13, and page 2, lines 24-26, where insertion of nucleic acid molecules into linear vectors is described. New claims 121-161 are based on original claims 1-41, respectively, and refer to forming circular vectors. New claims 121-161 find support at least in claims 1-41, respectively, and on page 2, lines 11-13, and page 2, lines 24-26, where formation of circular vectors is described.

New claims 162 and 164-166 are based on original claims 42-45, respectively, and include subjecting identified nucleic acid molecules by coupled transcription-translation to produce transcripts and proteins. New claims 162 and 164-166 find support at least in original

claims 42-45, respectively, and on page 3, lines 27-30, where coupled transcription-translation is described. New claim 163 finds support at least on page 3, lines 27-30, where coupled transcription-translation and activity screening are described.

New claims 167 and 169-171 are based on original claims 42-45, respectively, and include subjecting identified nucleic acid molecules by coupled transcription-translation to produce transcripts and proteins. New claims 167 and 169-171 find support at least in original claims 42-45, respectively, and on page 3, lines 27-30, where coupled transcription-translation is described. New claim 168 finds support at least on page 3, lines 27-30, where coupled transcription-translation and activity screening are described.

New claims 53-57, 59-61, 162, 164-167, and 169-171 are based on original claims 42-45 (which remain pending) and merely represent different forms of the disclosed method. The new claims are not substitute claims for any other claims and are not added for any substantial reason related to patentability, and thus all of the claim limitations are entitled to application of the doctrine of equivalents. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki*, 234 F.3d 558 (Fed. Cir. 2000) (en banc).

New claims 70-73 are based on original claim 50 (which was allowed in the parent application) and merely represent different forms of the disclosed method. Similarly, new claims 74-77 are based on original claim 51 (which was allowed in the parent application) and merely represent different forms of the disclosed method. The new claims are not substitute claims for any other claims and are not added for any substantial reason related to patentability, and thus all of the claim limitations are entitled to application of the doctrine of equivalents. *See Festo*, 234 F.3d 558.

New claims 78 and 79 are based on original claims 1 and 2, and 1 and 3, respectively, (which were allowed in the parent application) and merely represent different forms of the disclosed method. The new claims are not substitute claims for any other claims and are not added for any substantial reason related to patentability, and thus all of the claim limitations are entitled to application of the doctrine of equivalents. *See Festo*, 234 F.3d 558.

New claims 80-120 and 121-161 are based on original claims 1-41 (which were allowed in the parent application) and merely represent different forms of the disclosed method. The new claims are not substitute claims for any other claims and are not added for any substantial reason related to patentability, and thus all of the claim limitations are entitled to application of the doctrine of equivalents. *See Festo*, 234 F.3d 558.

New claims 58, 163, and 168 are new claims and are not substitute claims for any other claims and are not added for any substantial reason related to patentability, and thus all of the claim limitations are entitled to application of the doctrine of equivalents. *See Festo*, 234 F.3d 558.

A check in the amount of $1,199.00, representing $639.00 for the fee for a small entity under 37 C.F.R. § 1.16(c) and $560.00 for the fee for a small entity under 37 C.F.R. § 1.16(b), is

enclosed. This amount is believed to be correct; however, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 14-0629.

Respectfully submitted,

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